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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KOJIRO OKAMOTO, HIROMICHI SHIMADA,
and YOSHIHISA FUKUSHIMA

Appeal 2009-0140
Application 09/744,595
Technology Center 2600

Decided:[1] February 11, 2009

Before KENNETH W. HAIRSTON, MAHSHID D. SAADAT,
and KARL D. EASTHOM, *Administrative Patent Judges*.

EASTHOM, *Administrative Patent Judge*.

DECISION ON APPEAL

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[1] The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from the Examiner's Final Rejection of claim 29, the sole pending claim. (App. Br. 1).[2] We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Appellants invented, according to their disclosure, a disc[3] copying prevention system. Appellants' system employs a disc-shaped recording medium having a primary recording region and a secondary recording region inside the periphery of the primary region. A track in the primary region wobbles at a first pitch different from a wobble at a second pitch in a track in the second region. Invalid key information in the secondary recording region inhibits copying, despite control information stored in the primary recording region otherwise allowing copying of encrypted data in the primary recording region. By exploiting the different wobbles, the system ignores the "false control information" in the primary region and, instead, reads the invalid key information first, thereby precluding unauthorized copying. (Spec. 3:3 to Spec. 4:17).

Claim 29 follows:

29. A reproducing system for reproducing information in a disc-shaped writable recording medium, comprising:

a disc-shaped medium having a primary recording region for recording a data signal based on a user instruction and a secondary recording

[2] Appellants' Brief (filed October 23, 2007) ("App. Br.") and Reply Brief (filed March 24, 2007) ("Reply Br."), and the Examiner's Answer (mailed January 24, 2007) ("Ans."), detail the respective positions of the parties.
[3] Appellants refer to a "disc" in claim 29, and a "disk" in the Specification. The term "disc" is employed here with no distinction intended.

region which is located on the side of an internal periphery of said primary recording region,

wherein said primary recording region has a track which wobbles at a first pitch, and along which the data signal is recorded;

wherein said secondary recording region has a track which wobbles at a second pitch different from said first pitch, and along which information pits are formed to record a signal representative of primary control information; and

wherein said primary control information in said secondary recording region includes an invalid key information item for inhibiting reproduction of main data encrypted in said primary recording region by using secondary control information recorded in said primary recording region, said secondary control information comprising information for decrypting said main data encrypted in said primary recording region and

a reproducing apparatus for the reproduction of said data signal on said primary recording region, including a pickup for reading a digital signal from said recording medium under rotation;

means for shifting said pickup; and

means for distinguishing if a reproduction location of said recording medium is the track which wobbles at said first pitch or the track which wobbles at said second pitch different from said first pitch, and

a system controller connected to said pickup, said shifting means and said distinguishing means wherein, at a time when said reproducing apparatus is initially actuated to reproduce said data signal from a track, said controller determines whether said track wobbles at said first pitch, and if so, shifts said pickup until said track wobbles at said second pitch, whereupon

said primary control information in said secondary recording region is first reproduced, and the reproduction of main data encrypted in said primary recording region by using secondary control information recorded in said primary recording region is inhibited by the invalid key information item included in said primary control information in said secondary recording region.

The Examiner relies on the following prior art references:

Timmermans	US 5,930,210	Jul. 27, 1999
Lokhoff	US 5,060,219	Oct. 22, 1991

The Examiner rejected claim 29 under 35 U.S.C. § 103(a) based upon Applicants' admitted prior art ("APA), and the teachings of Lokhoff and Timmermans.

ISSUE

Appellants and the Examiner present the following issue: Did Appellants demonstrate that the Examiner erred in finding that the APA, Lokhoff and Timmermans collectively teach placing invalid key information in a secondary region of a disc having wobbles at a second pitch?

FINDINGS OF FACT (FF)

1. Appellants admit, in the "Background Art" section of their Specification, that "at the time of the manufacture of an R disk, invalid key information is recorded in a secondary region of that R disk and identification information indicating that the disk . . . is not a ROM disk but an R disk." (Spec. 2: 3-8).

2. Appellants also state, in the "Background Art" section of their Specification, the following:

> However, these copy protection schemes are considered not to be thoroughgoing. If encrypted main data on a ROM disk is copied into a primary recording region of an R disk, together with its control information including a key information item and an identification information item indicating that the disk concerned is a ROM disk, it is likely that the copied main data is reproduced by the use of the copied control information in a conventional DVD reproducing apparatus. This is due to the fact that if false control information exists in a primary recording region of an R disk this causes a conventional DVD reproducing apparatus to mistakenly accept such control information prior to seeking out genuine control information in a secondary recording region of the R disk.

(Spec. 2: 8-21).

3. The statement, *supra*, (FF 2), that "these copy protection schemes are considered not to be thoroughgoing" implies that the schemes were not considered by *others*, in addition to Appellants, "not to be thoroughgoing." In other words, the whole "Background Art" section of Appellants' Specification (Spec. 1: 9 to Spec. 2: 21), including, *inter alia*, statements above in FF 1 and 2, constitute admitted prior art (APA).

4. Timmermans discloses a dedicated system that thwarts unauthorized copying from discs (col. 1, ll. 55-57). The system provides an encryption or scramble key encoded into a track undulation, known as a wobble, which wobble varies according to the key. Only when the system detects the wobble and key, described as a second physical parameter, can information from the disc be copied. The normal information on the disc does not have the wobble, but varies with a first physical parameter such as

optically detectable pits. (Timmermans, col. 4, ll. 5-36, col. 6, ll. 50-62, col. 7, ll. 13-21; Fig. 1b).

5. Lokhoff discloses a system to inhibit copying to a record carrier, including a disc. (Abstract). Recording of information for which the disc is not intended is inhibited by a control key stored on the disc (col. 5, ll. 6-58). The control key can be stored in an inner peripheral region 22a (Fig. 1), or in other regions along with position signals. Varying track sinusoidal undulations in different peripheral portions of the disc, modulated with positional information signals, and/or the control signal, allow the system to determine the position/synchronization of the track portion being scanned relative to the beginning of a servo track. In one embodiment, inner peripheral portion 24a contains control information, including the control key, while an outer peripheral portion 24b contains normal data and positional/synchronization information. (Lokhoff, col. 6, ll. 29-63; col. 8, ll. 10-12).

PRINCIPLES OF LAW

"[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a prima facie case of unpatentability." *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). "On appeal to the Board, an applicant can overcome a rejection [under § 103] by showing insufficient evidence of prima facie obviousness or by rebutting the prima facie case with evidence of secondary indicia of nonobviousness." *In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) (*quoting In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)). To establish a prima facie case,

> "there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness" . . . . [H]owever, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.

KSR Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727, 1741 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

"It is necessary to consider everything appellants have said about what is prior art to determine the exact scope of their admission." *In re Nomiya*, 509 F.2d 566, 571 (CCPA 1975).

"It should not be necessary for this court to point out that a patentable invention may lie in the discovery of the source of a problem even though the remedy may be obvious once the source of the problem is identified." *Id*. (*quoting In re Sponnoble*, 405, F.2d 578, 585 (CCPA 1969)). However, "knowledge of a problem provides a reason or motivation for workers in the art to apply their skill to its solution." *Nomiya*, 509 F.2d at 572. *See also KSR*, 127 S. Ct. at 1742 ("One of the ways in which a patent's subject matter can be proved obvious is by noting that there existed at the time of invention a known problem for which there was an obvious solution encompassed by the patent's claims.").

ANALYSIS

Appellants argue that the Examiner improperly used Appellants' admission as the source of motivation to combine the references. (App. Br. 9). Particularly, Appellants state that they discovered the source of the problem, and did not admit that it was prior art. (*Id*.).

According to Appellants' discussion in the "Background Art" section of their Specification, the source of the problem of unauthorized copying involves prior art copying systems that fail to read an invalid key in the secondary region of an R disk. Instead, prior art systems read a false encryption/decryption key and ROM indication key (obtained from an original ROM disc copied to the R disc) stored in the primary region of the R disc, thereby allowing unauthorized copying. The invalidating key in the secondary region of the R disc, if read first, would thwart unauthorized copying of that disc. (*See* FF 1, 2, and the discussion in the "Statement of the Case" section, *supra*). According to Appellants' arguments (App. Br. 7, 9-10), Appellants discovered the foregoing prior art problem, i.e., the failure of conventional copying machines to read the invalid key in the secondary region first. (*See Id.*).

Appellants' arguments are not supported by the record. (FF 1- 3). Appellants' statement that "these copy protection schemes are considered not to be thoroughgoing," made in the "Background Art" section of their Specification, (FF 2, 3), in the context of the initial prior admissions before the statement under the same section title, logically implies that prior art schemes, known to allow copying, were considered by *others* not to be thoroughgoing. Copying was known. As to how the known copying occurred, Appellants state: "This is due to the fact that if false control information . . . ." (*see* FF 2). Nothing indicates that Appellants discovered "the fact."

Therefore, contrary to Appellants' assertions (App. Br. 7, 9-10), all statements in the "Background Art" section (*see* FF 1-3) constitute admissions. The arguments do not explain why certain portions of the

admissions should be delineated from others. In summary, Appellants' statements (FF 2, 3) admit that others knew that the reason copying occurred was that known copy machines first accessed the "false" decryption key and ROM indication key in the primary area of the disc, before accessing the invalidation key in the secondary key of the disc.

Appellants' reliance on *In re Sponnoble*, 405 F.2d at 585, is misplaced. (*See* App. Br. 10). In the instant case, the record supports the Examiner's finding that Appellants' admit that the source of the problem was known. (*See* Ans. 9, FF 2, 3).[4] Appellants' general denials that they did not admit that the source of the problem was prior art do not explain how the Examiner's reliance is in error. Appellants' arguments, at most, imply that all the statements describing the problem; i.e., those in the "Background Art," that follow the statement: "However, these copy protection schemes are considered not to be thoroughgoing" (FF 2) are not admitted, but all statements before that are. However, Appellants provide no logical reason for such a line of demarcation. Moreover, Appellants do not explicitly provide such a line of demarcation or otherwise affirmatively state that statements that follow the "thoroughgoing" statement are not admitted as prior art.

Nomiya, 509 F.2d at 571, relying on and quoting *Sponnoble*, is instructive. In *Nomiya*, the court, noting that the Board had conceded that certain statements were not admitted, quoted from a relevant portion of a section of the patent application at issue entitled "Description of the Prior

[4] The Examiner noted that part of the identification information allowing copying is the false indication that the R disk is "a RUM [sic ROM] disk stored in the secondary [sic primary] region."

Art;" which stated: "According to investigation, however, it has been revealed that since . . . ." Further in *Nomiya*, the court also relied upon a broken line in prior art figures, in conjunction with the above statement and the Board's separate findings, to delineate between what the appellants there contributed and what they admitted as prior art. (*Nomiya*, 509 F.2d at 570-71). In contrast, as explained above, Appellants here fail to put forth a supportable argument explaining why certain statements should be parsed out from the "Background Art" section as non-admitted facts.

Appellants are correct that the Examiner's rejection would fail unless Appellants' prior art admission supplies the motivation for combining the references. (App. Br. 10). It follows that, since Appellants do not argue otherwise, their admission (FF 2, 3), describing the known prior art copying problem, constitutes sufficient prima facie evidence of motivation to sustain the rejection. In other words, *KSR* and *Nomiya* make it clear that such a known problem can provide proper motivation to show obviousness.

As Appellants' acknowledge, Timmermans discloses a means for detecting a wobble which includes a validation key required to copy information from that disk. (App. Br. 8, *see* FF 4). As such, Timmermans evidences that skilled artisans knew how to force a disc reader to read a specific portion of the disk, using the disc wobble, as a precondition to copying information from the disk. Therefore, skilled artisans, aware of the APA copying problem based upon reading the false key first, instead of the desired invalid key, easily would have recognized the solution, in light of the combination, as requiring the system to read the invalid key information first by using a distinct wobble on the disk to carry the information. (*See* FF 1-4).

Appellants counter arguments (App. Br. 8) that Timmermans teaches away from the invention by requiring a reading of a valid key, as opposed to the claimed invalid key, ignores the general teaching of Timmermans. That is, Timmermans teaches a system that requires detecting a particular wobble area in the disk to ensure that a desired informational key is read first. (FF 4). The APA makes clear that the invalid key in the secondary area should be read first to thwart copying. (*See* FF 1-3).

As Appellants also acknowledge, Lokhoff teaches an invalidation key which inhibits copying to a disk not having the key. (*See* App. Br. 7, FF 5). The Examiner found that Lokhoff also teaches first and second primary and secondary recording areas generally having first and second wobbles as recited in the claim. (Ans. 5). The secondary region comprises control information for generally inhibiting copying onto the disk. Appellants do not dispute these findings either, which are generally supported. (*See* FF 5). As such, Lokhoff evidences that skilled artisans knew that distinct desired information could be scanned based on the location of different wobble pitches on different peripheral areas of the disc. (*See* FF 5).

Appellants' contention (App. Br. 6-8) that the invention is patentable over the separate teachings of each of the references; i.e., the APA, and the Lokhoff and Timmermans references, does not address the combination. *In re Keller*, 642 F.2d 413, 426 (CCPA 1981) (individual attacks on references do not defeat obviousness based on the combination).

As Appellants' argument that the APA, Lokhoff, and Timmermans are not properly combinable is founded on the premise that Appellants do not admit that the copying problem in APA systems was known, Appellants arguments must fail, for the reasons noted *supra*. Skilled artisans, aware of

the known problem, and also aware of the Lokhoff and Timmermans systems for finding and locating distinct and desired control information based on distinctly detectable wobble areas (FF 1-5), would have "appl[ied] their skill to its solution," *Nomiya, supra*, by modifying existing copying systems to detect the existing prior art invalid key located in a secondary recording area first by detecting and employing a second wobble pitch thereat. Skilled artisans also would have applied the teachings of Lokhoff and Timmermans to render the second wobble pitch distinct from a first wobble pitch in the primary recording region to facilitate the first detection of the desired control signal; i.e., the invalid key - according to the APA. (*See* Ans. 4-9, FF 1-5). Accordingly, Appellants have not demonstrated that the Examiner failed to establish a prima facie case of obviousness.

In view of the above discussion, we will sustain the Examiner's 35 U.S.C. § 103 rejection of the sole claim on appeal, claim 29.

CONCLUSION

Appellants did not demonstrate that the Examiner erred in finding that the APA, Lokhoff and Timmermans collectively teach placing invalid key information in a second region of a disc having wobbles at a second pitch.

DECISION

We affirm the Examiner's decision rejecting claim 29.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv)(2006).

AFFIRMED

KIS

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